



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

77 WEST JACKSON BOULEVARD

CHICAGO, IL 60604-3590

SEP 28 2004

REPLY TO THE ATTENTION OF
(AE-17J)

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Ken Ramm, Environmental, Health, Safety
and Regulatory Manager
3M Company Specialty Materials Manufacturing Division
22614 Route 84 North
Cordova, Illinois 61242

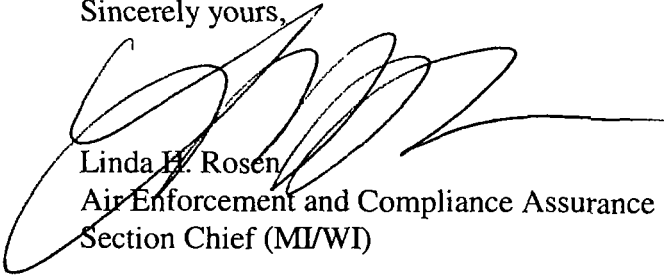
Dear Mr. Ramm:

Enclosed is a file stamped Consent Agreement and Final Order (CAFO) which resolves violations at 3M Company Specialty Manufacturing facility in Cordova, Illinois, CAA Docket No. CAA-05-2004 00-46. As indicated by the filing stamp on its first page, we filed the CAFO with the Regional Hearing Clerk on SEP 28 2004

Pursuant to paragraph 10 of the CAFO, 3M Company must pay the civil penalty within 30 days after the effective date of this CAFO. Your check must display the case docket number, CAA-05-2004 00-46 and the billing document number, 050304039.

Please direct any questions regarding this case to Reginald Pallesen, Regional Counsel, (312) 886-0555.

Sincerely yours,


Linda H. Rosen
Air Enforcement and Compliance Assurance
Section Chief (MI/WI)

Enclosure

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5**

IN THE MATTER OF:

3M Company
22614 Route 84 North
Cordova, Illinois 61242,

Respondent.

) Docket No. **CAA-05- 2004 0 0-46**
)
)
) **Proceeding to Assess an**
) **Administrative Penalty**
) **under Section 113(d) of the**
) **Clean Air Act,**
) **42 U.S.C. § 7413(d)**
)

CONSENT AGREEMENT AND FINAL ORDER

1. Complainant, the Director of the Air and Radiation Division, United States Environmental Protection Agency, Region 5 (U.S. EPA), brought this administrative action seeking a civil penalty under Section 113(d) of the Clean Air Act (the Act), 42 U.S.C. § 7413(d).

2. In September 2004, U.S. EPA filed an Administrative Complaint in this action against Respondent 3M Company. The Complaint alleges that 3M Company violated Section 112 of the Act, 42 U.S.C. § 7412, and the NESHAP for Pharmaceuticals Production, 40 C.F.R. 63 Subpart GGG, at its facility in Cordova, Illinois.

3. On August 9, 2004, U.S. EPA issued an Administrative Consent Order (ACO) requiring 3M Company to implement certain testing activities to demonstrate compliance with the NESHAP for Pharmaceuticals Production, 40 C.F.R. 63 Subpart GGG, at its Cordova, Illinois, facility.

Stipulations

4. 3M Company admits the jurisdictional allegations in the Complaint, but neither admits nor denies the factual allegations in the Complaint.

Journal of Management Studies, 19(1), 67-80.

5. 3M Company waives its right to contest the allegations in the Complaint, and waives its right to appeal this Final Order under Section 113(d) of the Act, 42 U.S.C. § 7413(d).

6. 3M Company certifies, based on reasonable knowledge and belief following a thorough inquiry, that it is undertaking the compliance activities required in the August 9, 2004, ACO, and is otherwise complying fully with NESHAP for Pharmaceuticals Production at 40 C.F.R. Part 63, Subpart GGG.

7. The parties agree to the terms of this Consent Agreement and Final Order (CAFO).

8. The parties agree that settling this action without further litigation, upon the terms and conditions in this CAFO, is in the public interest.

Civil Penalty

9. In consideration of Respondent's cooperation with Complainant, the facts and circumstances of this case, and the proposed Supplement Environmental Project, U.S. EPA agrees to mitigate the proposed penalty of \$ 110,000 to \$ 27,500.

10. 3M Company shall pay the \$ 27,500 civil penalty by cashier's or certified check payable to the "Treasurer, United States of America," within 30 days after the effective date of this CAFO.

11. 3M Company must send the check to:

U.S. Environmental Protection Agency
Region 5
P.O. Box 70753
Chicago, Illinois 60673

12. A transmittal letter, stating Respondent's name, complete address, the case docket number, and the billing document number must accompany the payment. Respondent must write

the case docket number and the billing document number on the face of the check. Respondent must send copies of the check and transmittal letter to:

Attn: Regional Hearing Clerk (R-19J)
U.S. Environmental Protection Agency, Region 5
77 West Jackson Blvd.
Chicago, Illinois 60604-3590

and to:

Attn: Compliance Tracker, (AE-17J)
Air Enforcement and Compliance Assurance Branch
Air and Radiation Division
U.S. Environmental Protection Agency, Region 5
77 West Jackson Blvd.
Chicago, Illinois 60604-3590

and to:

Reginald A. Pallesen
Office of Regional Counsel (C-14J)
U.S. Environmental Protection Agency, Region 5
77 West Jackson Blvd.
Chicago, Illinois 60604-3509

13. This civil penalty is not deductible for federal tax purposes.

14. If 3M Company does not pay timely the civil penalty, U.S. EPA may bring an action to collect any unpaid portion of the penalty with interest, handling charges, nonpayment penalties and the United States' enforcement expenses for the collection action under Section 113(d)(5) of the Act, 42 U.S.C. § 7413(d)(5). The validity, amount and appropriateness of the civil penalty are not reviewable in a collection action.

15. Interest will accrue on any overdue amount from the date payment was due at a rate established under 31 U.S.C. § 3717. 3M Company will pay a \$15 handling charge each month that any portion of the penalty is more than 30 days past due. 3M Company will pay a quarterly nonpayment penalty each quarter during which the assessed penalty is overdue according to

Section 113(d)(5) of the Act, 42 U.S.C. § 7413(d)(5). This nonpayment penalty will be 10 percent of the aggregate amount of the outstanding penalties and nonpayment penalties accrued from the beginning of the quarter.

Supplemental Environmental Project

16. 3M Company shall complete a Supplemental Environmental Project (SEP) designed to protect the environment by reducing toluene emissions to the air and wastewater at its Cordova, Illinois facility.

17. At its Cordova facility, 3M Company shall implement a "Monomer Production Toluene Release Reduction Project," as generally described in Attachment A hereto, to achieve sustainable reductions of toluene emissions of at least 10 tons per year from two high-volume monomer production processes at the facility that release amounts of toluene (a Hazardous Air Pollutant) directly to the air and to the facility's wastewater treatment system.

18. Within 60 days of the effective date of this CAFO, 3M must submit to U.S. EPA a Scope of Work for the Monomer Production Toluene Release Reduction Project, including a detailed description of the Project, basic designs and implementation schedules. 3M Company shall submit to U.S. EPA interim reports citing progress with the Project, expenditures on the Project during the reporting period, and any problems encountered in implementing the Project during the reporting period. The Monomer Production Toluene Release Reduction Project must be completed and operational no later than June 1, 2005.

19. 3M Company must spend at least \$135,000 to implement the Monomer Production Toluene Release Reduction Project, with no more than 15% of this amount credited toward costs incurred in developing the project.

20. Subject to reasonable periods of downtime for maintenance and repair, 3M Company must use or operate the equipment installed under Monomer Production Toluene Release Reduction Project for a period of 5 years following its installation. With prior notification to and approval by EPA, 3M Company may make changes to the equipment and/or the process operation if the process is permanently shutdown, if the product is reformulated such that HAPs are no longer used in the process, or if an alternative process is designed that would provide greater HAP reductions from the process.

21. 3M Company certifies that it is not required to perform or develop the SEP by any law, regulation, grant, order, or agreement, or as injunctive relief as of the date it signs this CAFO. 3M Company further certifies that it has not received, and is not negotiating to receive, credit for the SEP in any other enforcement action.

22. U.S. EPA may inspect the facility at any time to monitor 3M Company's compliance with SEP requirements of this CAFO.

23. 3M Company must maintain copies of the underlying research and data for all reports submitted to U.S. EPA according to this CAFO. 3M Company must provide the documentation of any underlying research and data to U.S. EPA within seven days of U.S. EPA's request for the information.

24. 3M Company must submit a SEP completion report to U.S. EPA by September 1, 2005. This report must contain the following information:

- a. detailed description of the SEP as completed;
- b. description of any operating problems and the actions taken to correct the problems;

- c. itemized costs of goods and services used to complete the SEP documented by copies of invoices, purchase orders, or canceled checks that specifically identify and itemize the individual costs of the goods and services;
- d. certification that 3M Company has completed the SEP in compliance with this CAFO; and
- e. description of the environmental and public health benefits resulting from the SEP (quantify the benefits and pollution reductions, if feasible).

25. 3M Company must submit all notices and reports required by this CAFO by first class mail to:

Attn: Compliance Tracker (AE-17J)
Air Enforcement and Compliance Assurance Branch
Air and Radiation Division
U.S. Environmental Protection Agency, Region 5
77 West Jackson Blvd.
Chicago, Illinois 60604-3590

26. In each report that 3M Company submits as provided by this CAFO, it must certify that the report is true and complete by including the following statement signed by one of its officers:

I certify that I am familiar with the information in this document and that, based on my inquiry of those individuals responsible for obtaining the information, the information is true and complete to the best of my knowledge. I know that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

27. Following receipt of the SEP completion report described in paragraph 24 above, U.S. EPA will notify 3M Company in writing that:

- a. It has satisfactorily completed the SEP and the SEP report;
- b. There are deficiencies in the SEP as completed or in the SEP report, and U.S. EPA will give 3M Company 30 days to correct the deficiencies; or

- c. It has not satisfactorily completed the SEP or the SEP report, and U.S. EPA will seek stipulated penalties under paragraph 28 below.

28. If U.S. EPA exercises option b above, 3M Company may object in writing to the deficiency notice within 10 days of receiving the notice. The parties will have 30 days from U.S. EPA's receipt of 3M Company objection to reach an agreement. If the parties cannot reach an agreement, U.S. EPA will give 3M Company a written decision on its objection. 3M Company will comply with any requirements that U.S. EPA imposes in its decision. If 3M Company does not complete the SEP as required by U.S. EPA's decision, 3M Company will pay stipulated penalties to the United States under paragraph 29 below.

29. If 3M Company violates any requirement of this CAFO relating to the SEP, 3M Company must pay stipulated penalties to the United States as follows:

- a. Except as provided in subparagraph b, below, if 3M Company did not complete the SEP satisfactorily according to this CAFO, 3M Company must pay a stipulated penalty in the amount of \$ 82,500.
- b. If 3M Company did not complete the SEP satisfactorily, but U.S. EPA determines that 3M Company: (i) made good faith and timely efforts to complete the SEP; and (ii) certified, with supporting documents, that it spent at least 90 percent of the required amount on the SEP, 3M Company will not be liable for any stipulated penalty.
- c. If 3M Company satisfactorily completed the SEP, but spent less than 90 percent of the required amount on the SEP, 3M Company must pay a stipulated penalty in the amount of \$ 50,000.
- d. If 3M Company failed to submit timely the SEP completion report required by paragraph 24 above, 3M Company must pay a stipulated penalty of \$ 500 for each day after the report was due until it submits the report.

30. U.S. EPA's determinations of whether 3M Company satisfactorily completed the SEP and whether it made good faith, timely efforts to complete the SEP will bind 3M Company unless 3M Company can demonstrate that U.S. EPA's determinations were arbitrary and capricious.

31. 3M Company must pay any stipulated penalties within 15 days of receiving U.S. EPA's written demand for the penalties. 3M Company will use the method of payment specified in paragraphs 10, 11 and 12 above, and will pay interest, handling charges, and nonpayment penalties on any overdue amounts.

32. Any public statement that 3M Company makes referring to the SEP must include the following language, "3M Company performed this project under a settlement of an enforcement action brought by the United States Environmental Protection Agency against 3M Company for alleged violations of the Clean Air Act NESHAP for Pharmaceuticals Production."

General Provisions

33. This CAFO settles U.S. EPA's claims for civil penalties for the violations alleged in the Complaint.

34. Nothing in this CAFO restricts U.S. EPA's authority to seek 3M Company's compliance with the Act and other applicable laws and regulations.

35. This CAFO does not affect 3M Company's responsibility to comply with the Act and other applicable federal, state and local laws and regulations.

36. This CAFO constitutes an "enforcement response" as that term is used in "U.S. EPA's Clean Air Act Stationary Source Civil Penalty Policy" to determine 3M Company's "full compliance history" under Section 113(e) of the Act, 42 U.S.C. § 7413(e).

37. The terms of this CAFO bind 3M Company, and its successors and assigns.

38. Each person signing this Consent Agreement certifies that he or she has the authority to sign this Consent Agreement for the party whom he or she represents and to bind that party to its terms and conditions.

39. Each party agrees to bear its own costs and fees in this action.

40. This CAFO constitutes the entire agreement between the parties.

CONSENT AGREEMENT AND FINAL ORDER

3M Company

Docket No. CAA-05-2004-

**U.S. Environmental Protection Agency,
Complainant**

Date:

9/24/2004

By:



Stephen Rothblatt, Director
Air and Radiation Division
U.S. Environmental Protection
Agency, Region 5

**3M Company,
Respondent**

Date:

9/15/2004

By:



Jerry L. Walker, Vice President
3M Specialty Materials Manufacturing Division

CONSENT AGREEMENT AND FINAL ORDER

3M Company

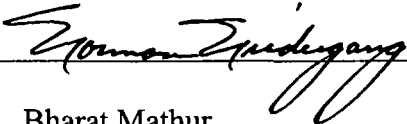
Docket No.

CAA-05- 2004 0046

Final Order

It is ordered as agreed to by the parties and as stated in the Consent Agreement, effective immediately upon filing of this CAFO with the Regional Hearing Clerk.

Date: 9/24/04

By: 

for Bharat Mathur
Acting Regional Administrator
U.S. Environmental Protection
Agency, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

APPENDIX A

3M Cordova Supplemental Environmental Project for Monomer Production Toluene Release Reduction

The 3M Cordova Specialty Materials Manufacturing facility produces, among many other products, iso-octyl acrylate (IOA) monomer. IOA monomer is used throughout 3M Company by many divisions as the starting material for adhesives and coatings for thousands of 3M products.

Producing IOA monomer requires a complex series of chemical unit operations, including reaction, continuous distillation and stripping, requiring pressure reduction (vacuum). Toluene is used as a raw material in these processes, to assist in the azeotropic distillation of water away from the product. As such, toluene is released to the air and to wastewater through the steam-driven vacuum system. 3M Company has conducted testing to construct toluene mass balances, in order to estimate toluene releases from typical IOA monomer production. Test results estimate that, in 2003, just over 16 tons of toluene was released directly to the air from IOA monomer production, and just over 21 tons was discharged to the facility's wastewater treatment system.

Since the majority of toluene releases are a direct result of the steam-driven vacuum systems used in the IOA monomer processes, 3M Company began researching alternatives to that vacuum technology. 3M Company is in the process of evaluating the performance of a vacuum pump that would use iso-octyl acrylate or iso-octyl alcohol as a seal fluid, rather than water. The acrylate or alcohol would absorb the toluene from the air stream being pulled to create the vacuum. The seal fluid reservoir would be sized to ensure at least 95% removal of toluene from the air stream from one IOA monomer batch. At the conclusion of each batch, the iso-octyl acrylate or alcohol with toluene would be used as a raw material for the next batch. Since the vacuum system will not use water, releases of toluene to the plant's wastewater treatment system will also be reduced.

In the Consent Agreement and Final Order, 3M Company has committed to an annual 10 ton reduction of toluene releases via implementation of the SEP. An annual reduction of 10 tons of Hazardous Air Pollutant emissions represents about 1/3 of the total HAPs emitted to the air from 3M Cordova, and is 50 times more than the 400 pounds of HAPs emitted annually from the Pharmaceutical processes in the plant. Ideally, 3M Company will implement this change to all three IOA monomer processes at the Cordova facility, thus making the HAP reductions even greater than that required by the CAFO.

CERTIFICATE OF SERVICE

I, Shanee Rucker, certify that I hand delivered the original of the Consent Agreement and Final Order, docket number [**CAA-05- 2004 0046**] to the Regional Hearing Clerk, Region 5, United States Environmental Protection Agency, and that I mailed correct copies by first-class, postage prepaid, certified mail, return receipt requested, to Ken Ramm, 3M Company's Specialty Materials Manufacturing Division, by placing them in the custody of the United States Postal Service addressed as follows:

Ken Ramm, Environmental, Health, Safety
and Regulatory Manager
3M Company Specialty Materials Manufacturing Division
22614 Route 84 North
Cordova, Illinois 61242

US ENVIRONMENTAL
PROTECTION AGENCY
REGION 5

04 SEP 28 AM 1:23

RECEIVED
REGIONAL HEARING
CLERK

on the 28th day of September, 2004.

Shanee Rucker
Shanee Rucker
AECAS (MI/WT)

CERTIFIED MAIL RECEIPT NUMBER: 70010320000602953246

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 84